10. The electric double layer capacitor according to Claim 9, wherein the cellulose paper is paper prepared to contain at least 50 wt % of fibers obtained by beating regenerated cellulose fibers.

11. The electric double layer capacitor according to Claim 4, wherein the carbonaceous electrodes comprise a carbon material having a specific surface area of 100 to 2,500 m^2/g and an organic binder.

12. The electric double layer capacitor according to Claim 4, wherein the non-aqueous electrolyte comprises a solute which is a salt comprising a quaternary onium cation represented by $R^1R^2R^3R^4N^+$ or $R^1R^2R^3R^4P^+$, wherein each of R^1, R^2, R^3 and R^4 which are independent of one another, is a C_{1-6} alkyl group, and an anion of BF_4^-, PF_6^-, $CF_3SO_3^-$, AsF_6^-, $N(SO_2CF_3)_2^-$ or ClO_4^-, and a solvent which is at least one member selected from the group consisting of propylene carbonate, ethylene carbonate, dimethyl carbonate, diethyl carbonate, methylethyl carbonate, acetonitrile, sulfolane and methylsulfolane.

13. The electric double layer capacitor according to Claim 2, wherein the sheet is made of cellulose paper.

14. The electric double layer capacitor according to Claim 13, wherein the cellulose paper is paper prepared to contain at least 50 wt% of fibers obtained by beating regenerated cellulose fibers.--